Request for Proposals Part C* - Technical Specifications & Exhibits

King County
Department of Executive Services
Finance and Business Operations Division
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SECTION C – TECHNICAL SPECIFICATIONS & EXHIBITS

KING COUNTY BACKGROUND

Located on Puget Sound in Washington State, and covering 2,134 square miles, King County is nearly twice as large as the average county in the United States. With more than 1.8 million people, it also ranks as the 13th most populous county in the nation.

The county provides regional services to all residents of the county, including people who live in cities. These services include courts and related legal services, public health services, the county jail, records and elections, property tax appraisals and regional parks and facilities, including the King County International Airport (Boeing Field). With the voter-approved merger of Metro and King County, county government has also assumed the responsibility for public transit and sewage disposal. King County provides sub regional services in many suburban cities, such as animal control.

In unincorporated communities, King County provides the services listed above and many local services, including land-use regulation, building permits, police protection, roads and local parks. Other local services in unincorporated communities are provided by fire, water, library and hospital districts which operate independently of county government.

The Metropolitan King County Council is the legislative branch of county government. It adopts laws, sets policies and holds final approval over the budget. Council members represent geographic districts. Every county citizen, including city residents, has an opportunity to vote for a representative on the County Council.

The King County Executive is the elected executive officer of county government. Every citizen of the county has an opportunity to vote for the Executive, who is elected on a countywide basis.

The county is constructing a new county office building (NCOB) located at 401 5 Ave in Seattle. The building will provide retail space on the ground floor and 13 floors of office space for 1,500 to 2,000 county employees.

The purpose of this RFP is to select a Vendor to provide IP based telephony services to the county employees of the NCOB.

PROJECT OVERVIEW

The selected Vendor will be responsible for all tasks related to provisioning, operating and maintaining the IP telephony service including planning, engineering, obtaining the common equipment and telephones, installing, configuring, operating and maintaining the service. The county is responsible for obtaining an appropriate amount of PRI trunks from the Centrex provided by Qwest. The county also plans to use the county's LAN within the NCOB to provide connectivity between the telephones and the IP servers and gateways.

The majority of the county employees will be provided with multi-button sets initially configured to mimic the current feature sets. A much smaller sub-set of employees will require ACD groups with agents and supervisors.

Although up to 2,000 employees may eventually move to the NCOB, the county may not opt to provide IP telephony services to all employees. Therefore, a tiered pricing scheme is requested as part of this RFP.

The county may extend the IP telephony service beyond the NCOB using the King County WAN (KCWAN) to other locations as needed.

PROJECT TIMELINE

The equipment is required to be in place two months prior to occupancy. Occupancy is currently scheduled to begin June 7, 2007. Should the occupancy date be extended due to construction delays, the equipment installation dates would be modified.

County employees will move to the NCOB in phases. OIRM and the ITS department consisting of approximately 250 people will be the first group to move. Initially the county expects approximately 1,250 people will occupy the NCOB. This number may grow to 2,000 people.

NCOB Timeline
Table 1

Timeframe	Milestone
July to September 2006	Develop and transmit construction documents
September 2006	Provide furniture layout and drawings to vendor
January to March 2007	Tenant work rough-in
January to February 2007	Conduct station reviews
March to April 2007	IP telephone service installed in NCOB and operating. Must be completed two months before occupancy
March to June 2007	Order new letterhead and business cards
May 2007	Construction complete
May to June 2007	OIRM/ITS User Training (one week prior to occupancy). This is the first group to move to the NCOB.
June 8, 2007	OIRM and ITS department move to the NCOB. Approximately 250 people.
June to July 2007	Public Health User Training (one week prior to occupancy)
July 7, 2007	Public Health moves to the NCOB. Approximately 550 people.
July to August 2007	DCHS & Finance User Training (one week prior to occupancy)
August 7, 2007	DCHS and Finance moves to the NCOB. Approximately 450 people.

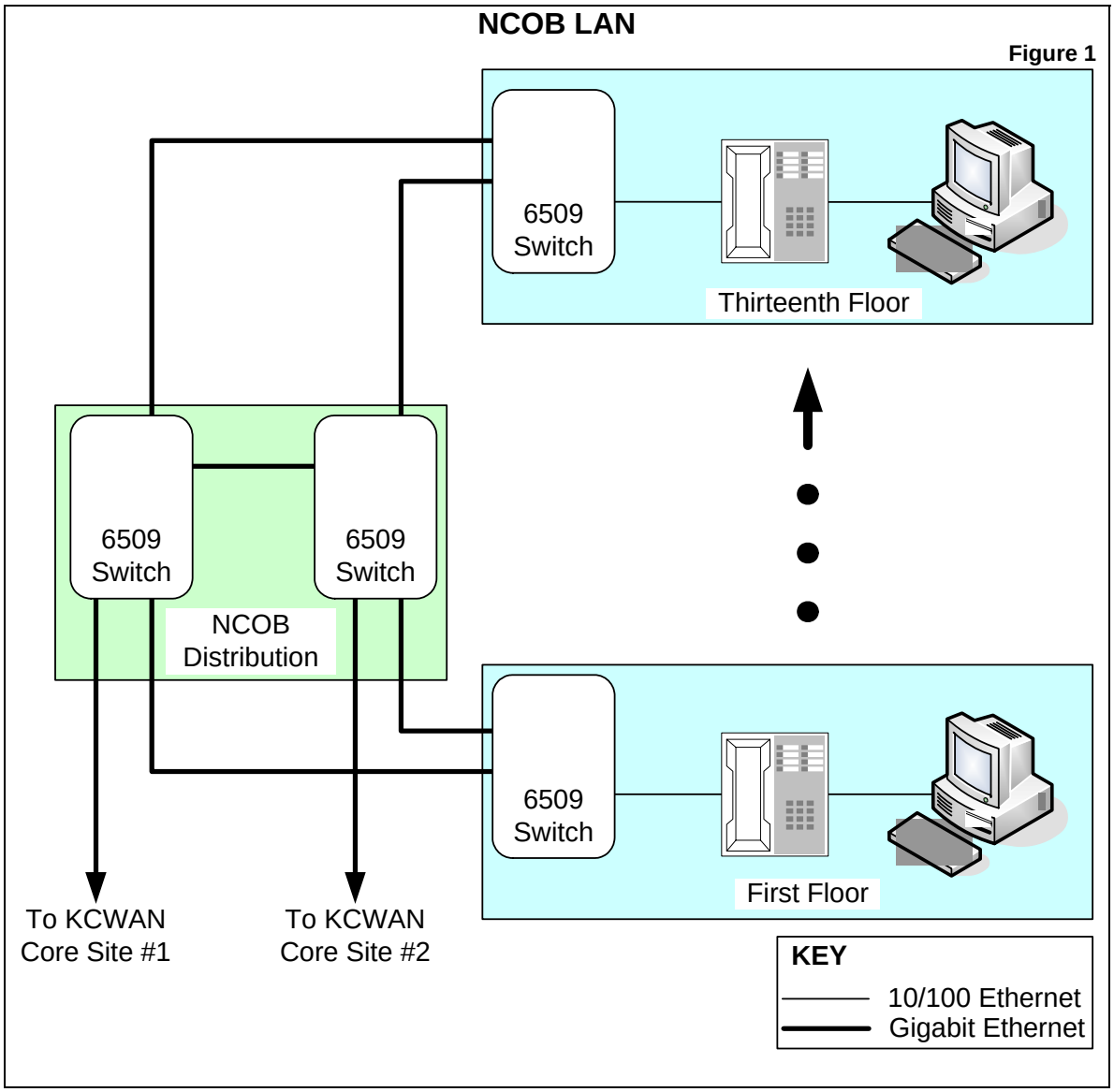
DESCRIPTION OF THE NCOB LAN

The following drawing, Figure 1 is meant to be a high level overview of the county's LAN within the NCOB. The selected Vendor will be provided a detailed IP network description including IP addressing.

All switches, both work group and NCOB LAN core shall be the Cisco 6509. Work group switches shall have PoE enabled Ethernet ports.

Connections between the work group switch and the end user's desk shall be 10/100 Ethernet. Connections between the core and the work group switches shall be gigabit Ethernet and the connections between the KCWAN core will be gigabit Ethernet.

All work group switches shall have redundant power supplies and supervisors.



SCOPE OF PRODUCTS AND SERVICES

The county desires a finished IP telephony service where the Vendor providing the service shall own, operate and maintain all equipment including the telephones. The vendor shall ensure that the service has sufficient capability to provide the features and reliability end users are accustomed to.

The purpose of this section is to describe the products and services provided by the IP telephony system provide.

TELEPHONE SETS

The majority of county employees will use the Cisco 7941G telephone. Some employees will use the 7961G telephone or the 7961G telephone with the 7914 extension module.

There are a limited number of ACD agents and supervisors who will also use the 7941G telephone.

ESTIMATED TRAFFIC LEVEL

The county estimates the approximate traffic level at 3.47 CCS per user. NOTE – this is an estimate, actual traffic may vary. This information is provided to assist the proposing vendor in determining the number of PRI circuits required.

ACD GROUPS

The county has identified four ACD groups who will be moving to the NCOB. Two of the ACDs are served by the Centrex and two are served by the county's NEC PBX – GNAV network.

Figures 2 through 5 below describe the current call flow for the two health department ACD groups served by the Centrex. Figure 6 describes the future call flow for ACDs using the IP telephone service for those ACDs currently served by the Centrex.

CALL IS INITIATED TO THE CENTREX ACD GROUP

Figure 2

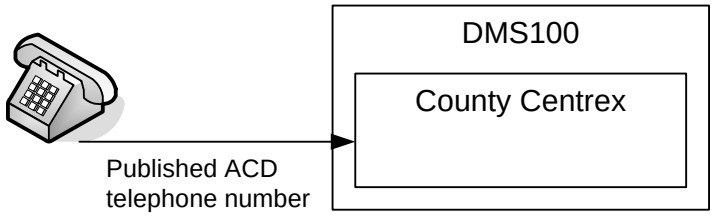


Figure 2. The caller dials the published ACD telephone number and is routed to the county's Centrex provided by the DMS100.

CALL IS ROUTED TO THE AVT SERVER FOR MENU OPTIONS

Figure 3

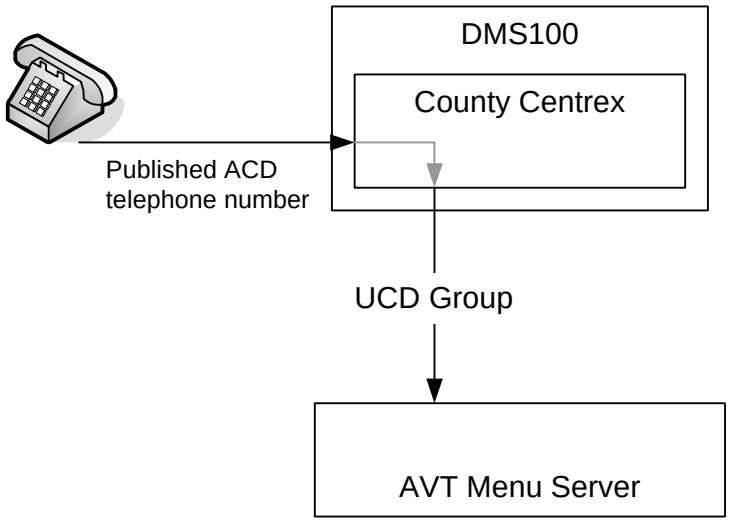


Figure 3. The DMS100 forwards the call across a UCD group to the AVT menu server. Signaling is via an SMDI link not shown in the drawing.

The AVT plays the menu for the caller and relays the appropriate information via recorded voice. If the caller is satisfied, the call is then terminated. Figures 4 and 5 illustrate call flow when the caller requests to speak to a live agent.

CALLER REQUESTS A LIVE AGENT

Figure 4

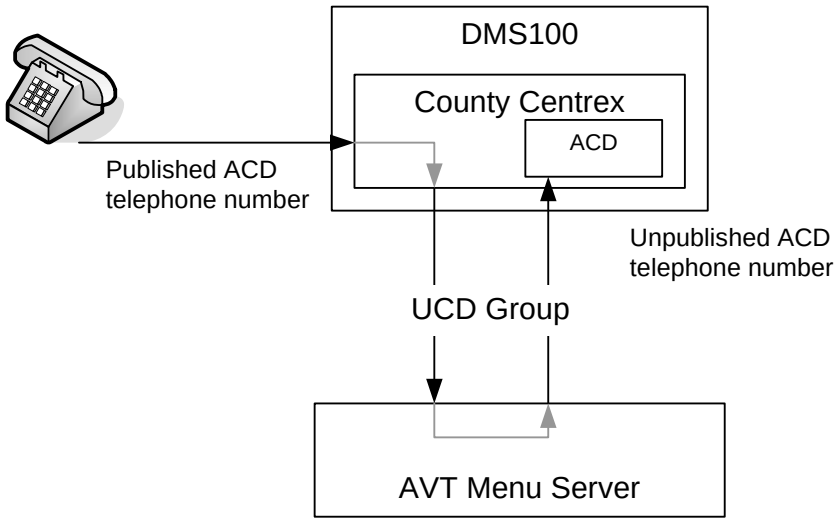


Figure 4. If the caller requires additional information or needs to speak to an agent, the AVT server performs an unsupervised transfer to an ACD located in the Centrex common block via an unpublished telephone number.

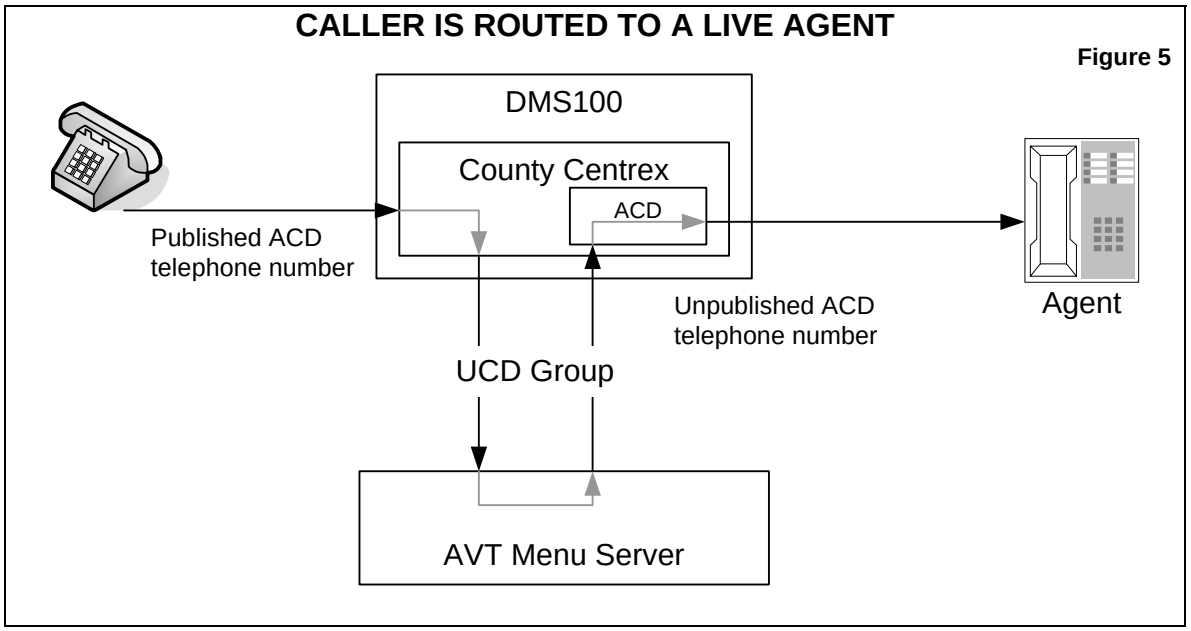
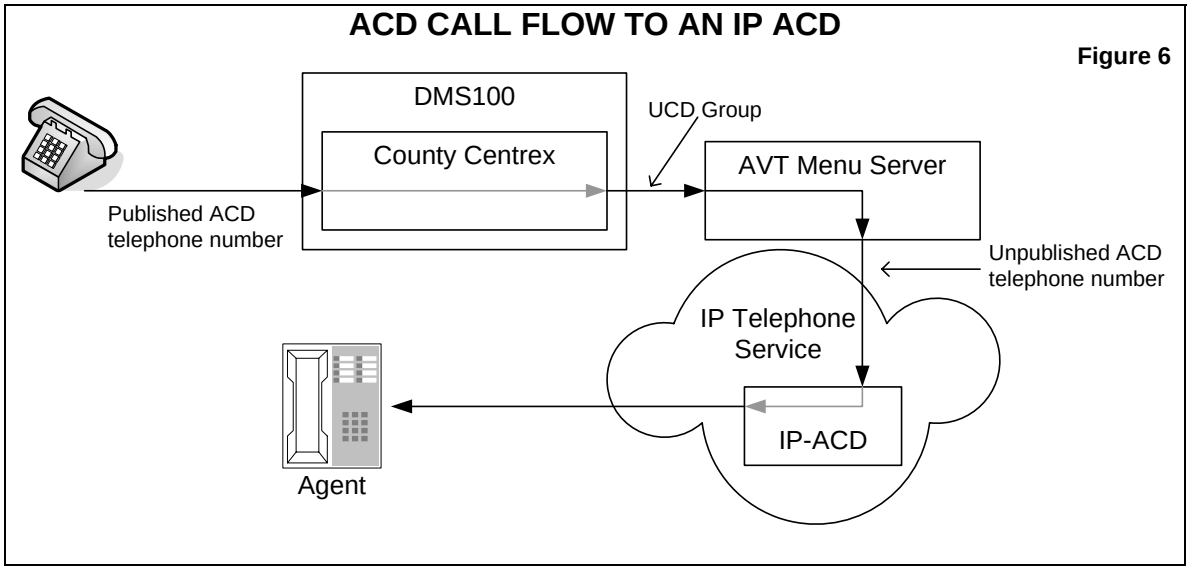


Figure 5. The DMS100 routes the incoming call from the AVT server to the ACD group hosted by the DMS100. The call is then routed to the live agent.

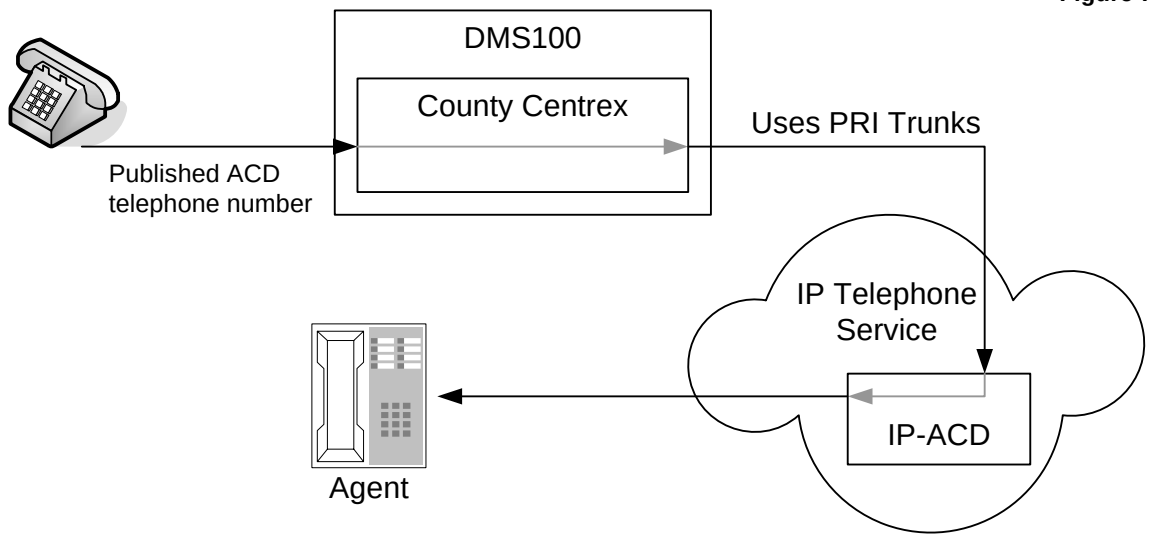


The county intends to continue using the AVT server to provide menu options to callers and recorded information. The county wishes to move the ACD functionality, including reporting from the DMS100 to the IP telephone service.

Figure 6 illustrates call flow for ACD calls to the IP telephone service.

ACD CALL FLOW TO AN IP ACD FOR A FORMER NEC ACD GROUP

Figure 7



The Finance Department Benefits and OIRM/ITS ACD groups currently served by the NEC PBX will bypass the NEC network when using the IP service for ACD support. Figure 7 illustrates the call flow for those ACDs currently served by the NEC after migration to the IP service.

Health Department MIS Help Desk ACD

Table 2

Parameter	**Size**
Supervisor	One
Agents	Four signed in simultaneously; 11 agents total
Queue	15 callers on hold maximum
Minimum required reports	Supervisor does not use the ACD reporting capability.
Messages	Hold message played every 30 seconds
Night service	ACD has a night service route
Call timeout. The greatest amount of time a call can remain in queue before the ACD will not accept any more calls into the queue.	None.
Overflow	When busy, ACD overflows to a separate light, lighting the message waiting indication.

Health Department Environmental Hazardous Waste ACD

Table 3

Parameter	Size
Supervisor	One
Agents	One signed in simultaneously; three agents total
Queue	One caller on hold maximum
Minimum required reports	Supervisor does not use the ACD reporting capability.
Messages	Hold message played every 30 seconds
Night service	ACD has a night service route
Call timeout	120 seconds
Overflow	When busy, ACD overflows to a recorded announcement provided by the AVT voice server.

OIRM/ITS Help Desk ACD

Table 4

Parameter	Size
Supervisor	One
Agents	Three signed in simultaneously; five agents total
Queue	Five callers on hold maximum
Minimum required reports	Match requirements for Finance Benefits ACD
Messages	Plays a hold message every 45 seconds
Night service	N/A
Call timeout	120 seconds
Overflow	None

Finance Benefits ACD

Table 5

Parameter	Size
Supervisor	Two
Agents	Ten agents total, typically four logged on simultaneously unless very busy when additional agents may log on to the ACD
Queue	Five callers holding in queue maximum
Minimum required reports	• Typical ACD incoming activity reporting including:

	1. Average # of logged-agents. 2. ACD total calls including abandoned calls. 3. Average # of answered ACD incoming calls. 4. Average speed to answer ACD incoming calls 5. ACD incoming call average talk time. 6. Number or abandoned ACD incoming calls. 7. Average wait time for abandoned calls. 8. Longest wait time for abandoned calls. 9. Percentage of ACD incoming calls that were abandoned. 10. Percentage of ACD incoming calls that were abandoned before a recorded announcement. 11. Percentage of ACD incoming calls that were abandoned after a recorded announcement. 12. Percentage of ACD incoming calls that were abandoned while ringing at an agent's position. ACD agent activity reporting including: 1. Number of ACD incoming calls answered by agent. 2. ACD incoming call average talk time for the agent. 3. The ACD incoming call total talk time for the agent. 4. The number of internal calls on the agent's ACD Position. 5. The ACD internal call average talk time for the agent. 6. The ACD internal call total talk time for the agent. 7. The number of times the agent entered work mode. 8. The after-call work mode average duration for the agent. 9. The number of times the agent entered break mode. 10. The break mode average duration for the agent. 11. The break mode total duration for the agent. • Abandoned calls • Agent activity • Call tally type statistics

PROPOSER RESPONSES

TECHNICAL REQUIREMENTS

The county has described the technical requirements in Appendix B. The proposing Vendor shall answer all question in Appendix B.

VENDOR QUALIFICATIONS

The county has requested Vendor qualifications in Appendix C. The proposing Vendor shall answer all questions in Appendix C.

SERVICE ACCEPTANCE CRITERIA

All telephones shall operate as specified by the county and selected Vendor during the station review.

All telephones shall provide service equal to the MOS determined during the initial NCOB LAN benchmark.

Operational issues related to the county's LAN will not affect payment to the selected Vendor.

PRICE SHEET INSTRUCTIONS

The county has provided multiple pricing sheets to accommodate the county's request for pricing for 250 to 2,000 telephones for a period ranging from three years to five years.

Appendix A contains all pricing sheets.

PRICE SHEET DESCRIPTIONS

The county is interested in obtaining pricing for different contract periods. Price sheets have been prepared addressing different quantities and contract periods as described below in Table 6.

The price sheets indicate fixed quantities of 250, 1,300 and 1,750 for pricing comparison purposes. The ranges indicated in the table below are provided to help the proposing Vendor gain a clearer picture of the approximate quantities of telephones the county would expect to install.

The county has not determined whether existing ACD groups will continue to use their existing serving arrangement or will move to ACD service provided by the IP telephone service. Therefore the county is requesting pricing based on both scenarios.

PLEASE NOTE – within each price sheet, the county has estimated the quantity of each set type. These are only estimates, the actual set type and count may vary at the time of installation.

Table 6

PRICE SHEET	DESCRIPTION
A1	225 to 300 users, 3 year contract with two 1 year extensions
A2	225 to 300 users, 5 year contract
A3	1,100 to 1,500 users, 3 year contract with two 1 year extensions
A4	1,100 to 1,500 users with ACD groups, 3 year contract with two 1 year extensions
A5	1,100 to 1,500 users, 5 year contract
A6	1,100 to 1,500 users with ACD groups, 5 year contract
A7	1,501 to 2,000 users, 3 year contract with two 1 year extensions
A8	1,501 to 2,000 users with ACD groups, 3 year contract with two 1 year extensions
A9	1,501 to 2,000 users, 5 year contract
A10	1,501 to 2,000 users with ACD groups, 5 year contract

Within each price sheet below the total line, indicate the total system capacity for each range.

COLUMN DEFINITIONS

Service – describes the service or product the county is requesting pricing for
MRC – monthly recurring charge
NRC – non recurring installation charge
Quantity – refers to the quantity desired each month
Extended MRC – MRC column multiplied by the Quantity column
Extended NRC - NRC column multiplied by the Quantity column
Annual MRC – Extended MRC column multiplied by 12

DEFINITIONS AND PRICE SHEET INSTRUCTIONS BY ROW

Table 7

ROW	DESCRIPTION
Standard Line 7961G telephone	Indicate the NRC and MRC for a 7961G IP telephone and line
Install 7961G telephone	Indicate the charge to install, configure and test a 7961G telephone on a standard line
Standard Line 7941G telephone	Indicate the NRC and MRC for a 7941G IP telephone and line
Install 7941G telephone	Indicate the charge to install, configure and test a 7941G telephone on a standard line
7914 Extension Module	Indicate the NRC and MRC for a 7914 IP extension module
Install 7914 Extension Module	Indicate the charge to install, configure and test a 7914 extension module
Standard line 7936 Conference telephone	Indicate the NRC and MRC for a 7936 IP conference telephone and line
Install 7936 Conference telephone	Indicate the charge to install, configure and test a 79362 conference telephone on a standard line
ACD Group*	Indicate the MRC and NRC to create and maintain an ACD group
ACD supervisor lines*	Indicate the MRC and NRC for an ACD supervisor telephone
ACD agent lines*	Indicate the MRC and NRC for an ACD agent telephone
ACD supervisor phone install*	Indicate the charge to install, configure and test an ACD supervisor telephone
ACD agent phone install*	Indicate the charge to install, configure and test an ACD agent telephone
Out of band management circuit	Indicate the MRC and NRC for an out of band management circuit, if required
IPT Training - Administrative Group	Indicate charges for training the telecom administrative group
IPT Training - IP Network Group	Indicate charges for training the IP network administrative group

IPT Training - End Users	Indicate charges for training the end users
IPT Training - ACD Supervisors	Indicate charges for training the ACD supervisors
IPT Training - ACD Agents	Indicate charges for training the ACD agents
IPT MACD	Indicate the charges for Move Add Change Delete activity. Add extra rows to the spreadsheet if necessary to provide additional information concerning charges for different types of MACD activity.
Vendor monitors IP network 24x7	Indicate any MRC or NRC associated with 24x7 IP network monitoring.
Benchmark county's IP network performance	Indicate any NRC associated with conducting an initial benchmark of the county's IP network.
Quarterly LAN performance measurements	Indicate any MRC or NRC associated with ongoing LAN performance measurements for comparison with the benchmark study.
TOTALS	Provide totals for the MRC, NRC, Extended MRC, Extended NRC and Annual MRC columns

*Only applies to those price sheets calling for ACD agents and supervisor pricing.

If the Vendor has additional pricing elements required to complete the service as described in this RFP not addressed in the pricing sheets, please add additional lines to the price sheets.

FUTURE SERVICES

The county reserves the right to purchase additional IP telephony features or services as part of this RFP as needed.

In a separate attachment to be labeled "ATTACHMENT 1", provide a catalog of additional features and services with individual MRC and NRC charges.

TERMINATION LIABILITY ASSESSMENT

In a separate attachment to be labeled "ATTACHMENT 2", describe the proposing Vendor's termination liability assessment (TLA) for the three year and five year contract options.

DEFINITIONS OF TERMS

Table 8

TERM	DEFINITION
AVT Menu Server	This device receives calls from the county's Centrex, and based upon the caller's TUI, either plays a recording providing the requested information or performs an unsupervised transfer to an agent's telephone via the county's Centrex.

CDR	Call Detail Record, (also Call Detail Recording) or Station Message Detail Recording (SMDR) is a record containing information about recent system usage, such as the identities of sources (points of origin), the identities of destinations (endpoints), the duration of each call, the time of day the call was placed and the date.
DID Number	A Direct Inward Dial telephone number.
IPT	Internet Protocol Telephony. The IP based telephone service the county is interested in obtaining through this RFP.
MACD	Move Add Change Delete activity.
MRC	Monthly Recurring Charge. The monthly fee or charge for the service or feature.
NRC	Non-Recurring Charge. Also referred to as a installation charge.
Proposing Vendor	The Vendor responding to this RFP. The county expects the proposing Vendor to indicate compliance and provide the document or information requested.
Selected Vendor	The Vendor selected by the county to provide IP telephony service. For questions addressed to the selected Vendor, the proposing Vendor is only expected to indicate ability to comply. It is not necessary to actually provide the document, information or service requested.
SMDR	Station Message Detail Recording – a record of all calls generated or received by the system, including call duration. See also CDR.
Software number	Software numbers are a virtual second line. A software number does not have a cable and pair associated with it, it is merely a method of allowing a second line appearance on a telephone without an associated cable pair. The user can select the software number and place an outbound call, in this way, software numbers differ from Call Waiting.
TUI	Telephone User's Interface. The touch tone dial pad on a telephone. The calling party makes selections by pressing a number on the keypad.

Appendix A

A1

3 YEAR CONTRACT WITH TWO 1 YEAR EXTENSIONS

APPENDIX A

Telephone quantity range 225 - 300

Total telephone quantity fixed number: 250

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			63			
Install 7961G telephone			63			
Standard line 7941G telephone			187			
Install 7941G telephone			187			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			250			
IPT MACD			20			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A2
5 YEAR CONTRACT

Telephone quantity range 225 - 300

Total telephone quantity fixed number: 250

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			63			
Install 7961G telephone			63			
Standard line 7941G telephone			187			
Install 7941G telephone			187			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			250			
IPT MACD			20			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			

TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A3

3 YEAR CONTRACT WITH TWO 1 YEAR EXTENSIONS

Telephone quantity range 1100 - 1500

Total telephone quantity fixed number: 1300

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			325			
Install 7961G telephone			325			
Standard line 7941G telephone			975			
Install 7941G telephone			975			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			1300			
IPT MACD			103			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A4

3 YEAR CONTRACT WITH TWO 1 YEAR EXTENSIONS

Telephone quantity range 1100 - 1500

Total telephone quantity fixed number: 1300

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			325			
Install 7961G telephone			325			
Standard line 7941G telephone			941			
Install 7941G telephone			941			
7914 Extension module			91			
Install 7914 Extension module			91			
Standard line 7936 Conference telephone			52			
Install 7936 Conference telephone			52			
ACD Group			4			
ACD supervisor lines			5			
ACD agent lines			29			
ACD Supervisor 7941G install			5			
ACD Agent 7941G install			29			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			1300			
IPT Training - ACD Supervisors			5			
IPT Training - ACD Agents			29			
IPT MACD			103			
Monthly traffic reports			1			
MIS ACD reports			16			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A5
5 YEAR CONTRACT

Telephone quantity range 1100 - 1500

Total telephone quantity fixed number: 1300

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			325			
Install 7961G telephone			325			
Standard line 7941G telephone			975			
Install 7941G telephone			975			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			1300			
IPT MACD			103			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A6
5 YEAR CONTRACT

Telephone quantity range 1100 - 1500
Total telephone quantity fixed number: 1300

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			325			
Install 7961G telephone			325			
Standard line 7941G telephone			941			
Install 7941G telephone			941			
7914 Extension module			91			
Install 7914 Extension module			91			
Standard line 7936 Conference telephone			52			
Install 7936 Conference telephone			52			
ACD Group			4			
ACD supervisor lines			5			
ACD agent lines			29			
ACD Supervisor 7941G install			5			
ACD Agent 7941G install			29			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			1300			
IPT Training - ACD Supervisors			5			
IPT Training - ACD Agents			29			
IPT MACD			103			
Monthly traffic reports			1			
MIS ACD reports			16			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A7

3 YEAR CONTRACT WITH TWO 1 YEAR EXTENSIONS

Total telephone quantity range 1501 - 2000

Total telephone quantity fixed number: 2000

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			500			
Install 7961G telephone			500			
Standard line 7941G telephone			1500			
Install 7941G telephone			1500			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			2000			
IPT MACD			159			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A8

3 YEAR CONTRACT WITH TWO 1 YEAR EXTENSIONS

Total telephone quantity range 1501 - 2000

Total telephone quantity fixed number: 2000

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			500			
Install 7961G telephone			500			
Standard line 7941G telephone			1466			
Install 7941G telephone			1466			
7914 Extension module			140			
Install 7914 Extension module			140			
Standard line 7936 Conference telephone			52			
Install 7936 Conference telephone			52			
ACD Group			4			
ACD supervisor lines			5			
ACD agent lines			29			
ACD Supervisor 7941G install			5			
ACD Agent 7941G install			29			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			2000			
IPT Training - ACD Supervisors			4			
IPT Training - ACD Agents			5			
IPT MACD			159			
Monthly traffic reports			1			
MIS ACD reports			16			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A9
5 YEAR CONTRACT

Total telephone quantity range 1501 - 2000
Total telephone quantity fixed number: 2000

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			500			
Install 7961G telephone			500			
Standard line 7941G telephone			1500			
Install 7941G telephone			1500			
7914 Extension module			2			
Install 7914 Extension module			2			
Standard line 7936 Conference telephone			8			
Install 7936 Conference telephone			8			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			2000			
IPT MACD			159			
Monthly traffic reports			1			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

A10
5 YEAR CONTRACT

Total telephone quantity range 1501 - 2000
Total telephone quantity fixed number: 2000

Service	MRC	NRC	Quantity	Extended MRC	Extended NRC	Annual MRC
Standard line 7961G telephone			500			
Install 7961G telephone			500			
Standard line 7941G telephone			1466			
Install 7941G telephone			1466			
7914 Extension module			140			
Install 7914 Extension module			140			
Standard line 7936 Conference telephone			52			
Install 7936 Conference telephone			52			
ACD Group			4			
ACD supervisor lines			5			
ACD agent lines			29			
ACD Supervisor 7941G install			5			
ACD Agent 7941G install			29			
Out of band management circuit			1			
IPT Training - Telecom Specialists			5			
IPT Training - IP Network Engineers			5			
IPT Training - End Users			2000			
IPT Training - ACD Supervisors			4			
IPT Training - ACD Agents			5			
IPT MACD			159			
Monthly traffic reports			1			
MIS ACD reports			16			
Telco monitors IP network 24x7			1			
Benchmark county's IP network performance			1			
Quarterly LAN performance measurements			1			
TOTALS						

*Indicate total system capacity for this range.	SYSTEM CAPACITY

Appendix B

APPENDIX B

TECHNICAL REQUIREMENTS

Indicate in the compliance column of Table 8 titled "REQUIRED TASKS, PRODUCTS OR SERVICES" below, whether you are able to comply with the task description. If clarifying remarks are required, please place them under the description of the task using a different color type.

REQUIRED TASKS, PRODUCTS OR SERVICES

Table 1

#	Compliance Yes/No	Task Description
1		The selected Vendor shall provide a project manager approved by the county. The county retains the right to remove the project manager if not satisfied with his or her performance.
2		The selected Vendor shall provide a project plan and timeline. The project plan should address the following: 1. Telecom system analyst, Data network engineer and end user training plan 2. A communication plan with the county including project status reports, actions assigned, issue resolution logs and the ability to schedule meetings with the county and Vendor as required. 3. A list of potential risks and mitigations. 4. Identify any reprogramming required on the county's NEC PBX network or within the Centrex service provided by Qwest 5. Identify any preparations the county must make to the LAN in the NCOB such as VLANs and QOS settings. 6. Roles and responsibilities 7. Test plan
3		The county expects the following: 1. By 6 PM the day before the next county business day following cutover, 99 % of all telephones should be tested and operative. 2. Cutovers will typically be scheduled outside of core working hours from 6AM to 6PM Monday through Friday.
4		The selected Vendor shall provide training for five telecom specialist staff, five data network engineers and end users. Training shall be provided before the cutover. Training is described as follows: 1. Telephone and data network engineer training can be located at the county's site or at the selected Vendor's local facility. Training shall be scheduled to complete one week before the cutover. 2. Provide documentation for the telecom specialist and IP engineer training. 3. Training for the end users shall be at the county's site. 4. In addition to training, the county requires an end user Quick Reference Guide.
5		End users may reuse their existing telephone numbers
6		The selected Vendor shall complete station reviews of existing service with direction from the telecom specialist staff.

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#	Compliance Yes/No	Task Description
7		The IP telephone service shall be configured to support 99.999% uptime.
8		The selected Vendor shall use the G.711 audio codec.
9		The county and selected Vendor shall work together to determine the dialing plan. The selected Vendor shall create the dial plan in the IP telephone service.
10		The county's NOC, staffed 24x7 will be the selected Vendor's primary point of contact when the selected Vendor and county employees must work together to resolve an issue.
11		The selected Vendor shall own, operate and maintain the IP telephony system including the telephone.
12		The selected Vendor shall provide a detailed benchmark report on the county's LAN before installation begins. The benchmark report includes, at a minimum, latency, throughput, percentage of dropped packets, jitter and MOS score.
13		The selected Vendor shall provide on-site support for three days following each cutover.
14		The selected Vendor shall provide all features listed below on each telephone. 1. Call Forward Busy 2. Call Forward Don't Answer 3. Call Forward Variable 4. Call Hold 5. Call Park 6. Call Pickup 7. Call Transfer 8. Call Waiting – Dial Originating, Originating, Terminating And Cancel Call Waiting 9. Caller ID 10. Caller ID Delivery On Call Waiting 11. Conference Call – 3 Way, 6 Way and 10 Way 12. Distinctive Ringing/Distinctive Call Waiting Tone 13. Directed Call Pickup – W/Barge-In and Non Barge-In 14. Hunting – MLHG, Circular and Series 15. Group Intercom 16. Last Number Redial 17. Message Waiting Indication 18. Network Speed Call 19. Speed Calling
15		The proposed IP service support software number functionality.
16		IP telephone service support multiple appearances of the same DID telephone number.

APPENDIX B

TECHNICAL INFORMATION

Answers to each question shall be placed immediately following the question in a different colored type as indicated below.

1. Provide a high level timeline describing how the proposing Vendor will meet the county's timeline described in the ITB, table 1. Proposer may wish to include the timeline as a separate document.
   Proposing Vendor's Response:

2. Describe the type of circuits and data connectivity the Vendor requires from the county to assure voice mail integration with the county's new voice mail platform. The platform has not yet been determined; however, the county is considering the AVST CallXpress, Cisco Unity and Interactive Intelligence Communite. Initially the county only plans to implement voice mail, unified messaging would follow later.
   Proposing Vendor's Response:

3. Currently the county uses a UCD group to provide connectivity between the AVT call server and the ACD located in the DMS100 as shown in Figure 5. What type of voice circuit is required to allow blind transfers between the AVT server and the IP telephone service as shown in Figure 5?
   Proposing Vendor's Response:

4. The county expects to own operate and maintain its own IP telephony network in the future. Therefore, the county is very interested in gaining experience with IP telephony by using the IP service in the NCOB. Describe what MACD activity the county can perform and what activity must be performed by the Vendor.
   Proposing Vendor's Response:

5. Describe how the county contacts the Vendor to initiate MACD activity and repair.
   Proposing Vendor's Response:

6. Describe the proposer Vendor's termination liabilities for each of the 12 pricing schemes described in the "Price Sheet Instructions" section, sub-section "Price Sheet Descriptions"
   Proposing Vendor's Response:

7. Describe how the proposed solution supports FAX machines
   Proposing Vendor's Response:

8. Describe how the proposed solution supports modems
   Proposing Vendor's Response:

9. Describe the recommended or preferred method of supporting analog devices such as FAX machines and modems?
   Proposing Vendor's Response:

10. Does the proposing Vendor recommend the county install backup Centrex lines in case the IP service fails? If so, how many lines are recommended per floor?
    Proposing Vendor's Response:

11. Does the proposed IP telephone service provide conference bridges? If so, how many bridges are supported? How many participants can each bridge support? Can the conference calls be initiated from a telephone not served by the IP telephone service?
    Proposing Vendor's Response:

APPENDIX B

12. List or describe the proposed system's reporting capability for the following;
    - Traffic statistics
    - SMDR (CDR)

    Proposing Vendor's Response:

13. Can the proposed IP telephone service provide the ability to block specific telephone numbers for both inbound and outbound calls?
    Proposing Vendor's Response:

14. Will the proposed IP telephone service require an out of band management circuit, such as a modem line for remote system administration? If so, please describe.
    Proposing Vendor's Response:

15. The county may ask the selected Vendor to conduct periodical performance studies on the county's LAN after installation for comparison against the benchmark to determine how IP telephony affects the county's IP network. Initially the county requests monthly reports. As the county becomes more familiar with IP telephony's affects on the IP network, the report frequency will change to quarterly. Describe the Vendor's requirements for monitoring the county's NCOB LAN. Can the performance studies be accomplished by reviewing performance data supplied by the county? If so, what information would the Vendor require?
    Proposing Vendor's Response:

16. Will the proposed IP telephone service provide busy hour traffic reports on a monthly basis to ensure the county has an appropriate level of PRI trunks connecting the gateway to the Centrex? The county requires these reports be provided in softcopy.
    Proposing Vendor's Response:

17. Will the proposed IP telephony service support the county's ACD requirements as described in tables 2 through 5?
    Proposing Vendor's Response:

APPENDIX B

E-911 SERVICE

Answers to each question shall be placed immediately following the question in a different colored type as indicated below.

1. To assure E-911 compatibility, the county will install PRI trunks connecting the IP service to the DMS100 and plans to purchase PS-ALI service. Describe any additional equipment, leased circuits or other expenses the county will be required to purchase or maintain.
   Proposing Vendor's Response:

2. Describe the county's initial and ongoing responsibilities to assure continued E-911 compatibility and to maintain the telephone's physical address accuracy.
   Proposing Vendor's Response:

ASSURING CALL QUALITY

The county will be responsible for all configuration changes or fine-tuning of the county's network. The county is interested in the level of Vendor support and the amount of technical advice the county can expect to receive from the selected Vendor to assure call quality across the IP network.

Depending upon the type of configuration changes the Vendor recommends, the county may opt to review the recommendations internally or with Cisco before implementing any change. Further, if the county's review of the recommendations indicates the changes may impact other county applications, the county may choose not to implement the changes.

The following questions assume the county is responsible for all IP network monitoring.

Answers to each question shall be placed immediately following the question in a different colored type as indicated below.

1. Connectivity between the IP service and the county employee's desk will be via the county's LAN in the NCOB. Describe the Vendor's requirements for visibility into the county's IP network.
   Proposing Vendor's Response:

2. If the county detects a drop in call quality, describe the level of support via either telephone or on-site the county's data network engineers can expect from the Vendor.
   Proposing Vendor's Response:

The county may opt to have the selected Vendor monitor the county's LAN in the NCOB 24x7 to assure voice quality. The following questions assume the Vendor is monitoring the county's IP network. Although the Vendor would be responsible for monitoring the IP network, the county would retain responsibility for all configuration changes the Vendor recommends.

1. Can the selected Vendor monitor the county's LAN in the NCOB 24x7 to assure call quality? If so, what are the Vendor's requirements for monitoring the county's NCOB LAN?
   Proposing Vendor's Response:

2. If the Vendor detects an issue with the IP network, describe the level of support via either telephone or on-site the county's data network engineers can expect from the Vendor.
   Proposing Vendor's Response:

Appendix C

APPENDIX C

VENDOR QUALIFICATIONS

REFERENCES

The proposing Vendor shall provide the names of at least three (3) current customers with whom they have entered into a similar agreement as is being requested in this ITB. Of these, at least one should be from the public sector. The county prefers installations of at least 500 stations.

Should any reference submitted by a proposing Vendor be found unsatisfactory, King County, at its sole option, may reject that proposing Vendor's offer. King County shall be the sole judge in determining a satisfactory/unsatisfactory reference response. **References must be submitted with the ITB response**.

- The contact name, address, and telephone number of the customer.
- Month and year of installation
- Brief description of the service including number of telephones and the degree of managed service
  Proposing Vendor's Response:

COMPANY PROFILE

The proposing Vendor must provide the following information.

- Company's full name
- Length of time the Vendor has provided voice and data services in King County
  Proposing Vendor's Response:

1. Location of the spare parts required to maintain the IP voice service
   Proposing Vendor's Response:

2. Describe the Vendor's experience working with the County's voice and data communications network.
   Proposing Vendor's Response:

3. Describe the Vendor's experience and resources to implement, manage and maintain an IP voice network of 1,500 to 2,000 telephones. Initially, the County anticipates a great deal of interaction with the Vendor while the new system and the County's IP network are configured to work well together. The chosen Vendor will need to have significant resources locally available to assist the County. Include in your response the location of company offices and service centers pertinent to your proposal, including numbers of manufacturer certified technicians available to support the IP voice service at the NCOB.

4. Proposing Vendor's Response:

5. Provide resumes of the technical personnel who will be supporting the IP telephony service.
   Proposing Vendor's Response: